CORRECTED AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all earlier versions.

Please amend the claims as follows.

Claim 1. (Currently amended) A catalyst regenerator for regenerating spent light FCC catalyst and heating the catalyst to supply heat to an FCC reactor, comprising:

a regenerator vessel housing a dense phase catalyst bed;

a central upright standpipe portion for receiving the spent catalyst to be regenerated;

a centerwell receiving a lower end of the standpipe portion and defining an annulus between the standpipe portion and an inside diameter of the centerwell;

a valve for introducing spent catalyst through the standpipe portion into the annulus;

a fuel distributor for introducing fuel into the centerwell for mixing with the catalyst in the annulus;

a fluidization distributor for introducing fluidization gas into the centerwell for fluidizing the catalyst in the annulus;

a radial slot formed in the centerwell below an upper surface of the dense phase bed for introducing the catalyst and fuel mixture from the annulus into the dense phase bed below ~~an~~ the upper surface ~~thereof~~;

an air distributor disposed in the dense phase bed subjacent to the radial slot for introducing combustion air into the dense phase bed;

a catalyst discharge outlet in fluid communication with the dense phase bed; and

an off gas discharge outlet in fluid communication with a dilute phase above the dense phase bed.

Claim 2. (original) The regenerator of claim 1 wherein the air distributor is an air distribution ring disposed in the dense phase bed about the centerwell subadjacent to the radial slot.

Claim 3. (original) The regenerator of claim 1 wherein the fuel distributor is at least one nozzle.

Claim 4. (original) The regenerator of claim 1 further comprising a source of fuel oil for supplying fuel oil to the fuel distributor.

Claim 5. (original) The regenerator of claim 1 further comprising a fluidization gas source for supplying fluidization gas to the fluidization distributor.

Claim 6. (original) The regenerator of claim 5 wherein the fluidization gas is steam.

Claim 7. (original) The regenerator of claim 1 further comprising a steam source for supplying steam to the fuel distributor.

Claim 8. (original) The regenerator of claim 1 wherein the valve is located at a lower end of the standpipe portion.

Claim 9. (original) The regenerator of claim 8 wherein the standpipe portion is a lower end of a central vertical standpipe located within the regenerator.

Claim 10. (original) The regenerator of claim 1, wherein the regenerator has an angled spent catalyst supply line extending into the regenerator and the valve is located in the angled spent catalyst line prior to entering the regenerator and the standpipe portion

extends from the angled spent catalyst supply line within the regenerator.

Claim 11. (original) The regenerator of claim 10 wherein the standpipe portion is attached to the end of angled spent catalyst line.

Claim 12. (withdrawn, currently amended) A method of converting an original FCC unit of side by side configuration to a converted FCC unit for processing light feedstock comprising:

providing the original ~~FFC~~ FCC unit having at least

an original regenerator having

a spent catalyst inlet,

an air inlet and

an air distribution assembly attached to the air inlet within and near a bottom of the regenerator,

an angled spent catalyst supply line attached to the spent catalyst inlet, and

a catalyst slide valve in the angled supply line, and

replacing the original regenerator with a regenerator according to Claim 1.

Claim 13. (withdrawn, currently amended) A method of converting an original FCC unit of side by side configuration to a converted FCC unit for processing light feedstock comprising:

providing the original ~~FFC~~ FCC unit having at least

an original regenerator having

a spent catalyst inlet,

an air inlet and

an air supply assembly attached to the air inlet within and near a bottom of the regenerator,

an angled spent catalyst supply line attached to the spent catalyst inlet, and

a catalyst slide valve in the angled supply line;

removing the air supply assembly;

installing a centerwell to the interior bottom of the regenerator;

providing a fluidization gas inlet and at least one fuel inlet through the bottom of the regenerator within the centerwell;

installing a fluidization gas distribution ring connected to the fluidization gas inlet and at least one fuel distribution nozzle connected to the corresponding at least one fuel inlet at the interior bottom of the regenerator within the centerwell;

providing an air inlet through the regenerator outside of the centerwell;

installing a deflector plate within the centerwell;

installing an internal pipe connected to the spent catalyst supply inlet,

wherein the internal pipe has an angled portion at a similar angle to that of the angled spent catalyst supply line, a standpipe portion and an annular plate attached to the standpipe portion,

wherein a lower end of the standpipe portion extends into the centerwell creating a radial slot between the annular plate and a top edge of the centerwell, and

wherein the lower end of the standpipe portion is spaced above the deflector plate to allow flow of spent catalyst through the standpipe portion and provide deflection of the spent catalyst flow direction

for mixing the spent catalyst with fuel oil that is vaporized within the centerwell when the modified FCC unit is operated; and

installing an air distribution pipe around the centerwell and below the radial slot and connected to the air inlet.

Claim 14. (New) The regenerator of claim 1 wherein the radial slot is defined by an upper end of a wall of the centerwell spaced from an annular plate disposed about the standpipe portion above the annulus to direct the mixture of fluidized spent catalyst and fuel radially outwardly from the centerwell into the dense phase bed.